PATENT COOPERATION TREATY

From the INTERNATIONAL BUREAU

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NOTIFICATION CONCERNING TRANSMITTAL OF COPY OF INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (CHAPTER I OF THE PATENT COOPERATION TREATY)
(PCT Rule 44bis.1(c))

To:

FENSTER, Paul
FENSTER & COMPANY, INTELLECTUAL PROPERTY LTD.
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ISRAËL

Date of mailing *(day/month/year)* 08 March 2007 (08.03.2007)	
Applicant's or agent's file reference 414/04517	**IMPORTANT NOTICE**

International application No.	International filing date *(day/month/year)*	Priority date *(day/month/year)*
PCT/IL2005/000906	18 August 2005 (18.08.2005)	25 August 2004 (25.08.2004)

Applicant
REABILITY INC. et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

The International Bureau of WIPO
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PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44*bis*)

Applicant's or agent's file reference 414/04517	**FOR FURTHER ACTION**	See item 4 below
International application No. PCT/IL2005/000906	International filing date *(day/month/year)* 18 August 2005 (18.08.2005)	Priority date *(day/month/year)* 25 August 2004 (25.08.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant REABILITY INC.		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*.1(a).

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

   In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

☒	Box No. I	Basis of the report
☐	Box No. II	Priority
☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☐	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☐	Box No. VI	Certain documents cited
☐	Box No. VII	Certain defects in the international application
☒	Box No. VIII	Certain observations on the international application

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44*bis*.3(c) and 93*bis*.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44*bis* .2).

	Date of issuance of this report 28 February 2007 (28.02.2007)
The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	Authorized officer Simin Baharlou e-mail: pt09.pct@wipo.int

Form PCT/IB/373 (January 2004)

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
PAUL FENSTER
FENSTER & COMPANY, INTELLECTUAL PROPERTY LTD.
P. O. BOX 10256
PETACH, ISRAEL 49002

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43*bis*.1)

Applicant's or agent's file reference 414/04517	Date of mailing (*day/month/year*) 08 JUN 2006 **FOR FURTHER ACTION** See paragraph 2 below

International application No.	International filing date (*day/month/year*)	Priority date (*day/month/year*)
PCT/IL05/00906	18 August 2005 (18.08.2005)	25 August 2004 (25.08.2004)

International Patent Classification (IPC) or both national classification and IPC

IPC: **A61H 1/00**(2006.01) A61B 5/04(2006.01)
USPC: 601/5,33;600/545

Applicant

REABILITY INC.

1. This opinion contains indications relating to the following items:

☒	Box No. I	Basis of the opinion
☐	Box No. II	Priority
☐	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
☐	Box No. IV	Lack of unity of invention
☒	Box No. V	Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
☐	Box No. VI	Certain documents cited
☐	Box No. VII	Certain defects in the international application
☒	Box No. VIII	Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US	Date of completion of this opinion	Authorized officer
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	11 April 2006 (11.04.2006)	For Gregory L Huson Virginia Isley Telephone No. (571) 272-3700

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/IL05/00906

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the questions whether the claims are fully supported by the description, are made:

Claims 11,13,19 are objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because the claims are indefinite for the following reason(s): They recite the phrase "said measurement," indicating that a measurement was claimed earlier. However these claims, as well as their parent claim 1 do not claim a measurement. Therefore there is a lack of anteceding basis for the "said measurement."

Claim 60 is objected to under PCT Rule 66.2(a)(v) as lacking clarity under PCT Article 6 because the claim is indefinite for the following reason(s): It is not clear what is being claimed. It seems as part (a) and part (b) are identical for they both claim the reorganization of brain functions. Furthermore, part (b) is unclear and seems to be a run on sentence. Was a comma intended to be placed between "reorganizing" and "rehabilitating?"

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/IL05/00906

Supplemental Box
In case the space in any of the preceding boxes is not sufficient.

V.1. Reasoned Statements:
The opinion as to Novelty was positive (Yes)with respect to claims 4,6,10-16,22,23,25,27,31,32,35-42,44,46-66,68,69,71-81
The opinion as to Novelty was negative (No) with respect to claims 1-3,5,7-9,17-21,24,26,28-30,33,34,43,45,67,70
The opinion as to Inventive Step was positive (Yes)with respect to claims 4,6,10-16,22,23,25,27,31,32,35-42,44,46-66,68,69,71-81
The opinion as to Inventive Step was negative(NO) with respect to claims 1-3,5,7-9,17-21,24,26,28-30,33,34,43,45,67,70
The opinion as to Industrial Applicability was positive (YES) with respect to claims 1-81
The opinion as to Industrial Applicability was negative(NO) with respect to claims NONE

V. 2. Citations and Explanations:
Claims 1-3,5,7-9,17-21,24,26,28-30,33,34,43,45,67,70, lack novelty under PCT Article 33(2) as being anticipated by Dean, Jr. et al.

Regarding claim 1, the reference comprises a movement element capable of controlling at least one motion parameter of a portion of a patient. The reference also suggests the monitoring of brain wave activity. A data acquisition computer encompasses circuitry and includes a memory for the storage of rehabilitation information. Because the reference states that the computer "responds appropriately to the patient's state of mind," it is evident that the signal for the brain wave monitor is interrelated with the movement of the movement element as part of a rehabilitation process.

Regarding claim 2, fig. 5 shows that a limb is put into motion.

Regarding claim 3, the data acquisition computer or circuitry controls the movement element.

Regarding claim 5, force is applied the portion of a patient against his/her movement. This constitutes resistance to movement.

Regarding claim 7, the said force is adjustable from zero to greater than the user's body weight. Thus the said circuitry must measure the force before it allows its adjustment, as well as after the said adjustment.

Regarding claim 8, pre-programmed or custom exercise regimens are provided and constitute a rehabilitation plan.

Regarding claim 9, feedback to the patient's performance is provided.

Regarding claims 17,18, because the invention of the reference comprises a brain wave monitor, it is capable of sending information to the circuitry that will detect an intent, as well as a readiness to move. Based on this "state of mind" the movement element "responds appropriately."

Regarding claim 19, in response to the user's production of insufficient force (a detection of movement or lack thereof) the apparatus will decrease the force.

Regarding claim 20, the recordings of readings from electrodes placed on a user's head are known as an electroencephalogram (EEG) and represent brain waves. Thus, a brain wave monitor encompasses an EEF monitor.

Regarding claim 21, the apparatus comprises a heart rate monitor, a device that inherently measure blood flow.

Regarding claim 24, the apparatus comprises means to provide force against the movement of a portion or a patient and is controllable by the circuitry.

Regarding claim 26, a body portion can either be engaged, or disengaged from the apparatus.

Regarding claim 28, the circuitry comprises a memory that stores a patient's performance data/rehabilitation progress.

Regarding claim 29, the apparatus comprises two movement elements that the circuitry moves in opposite directions to simulate walking, thus recognizing each as being associated with opposite limbs.

Regarding claim 30,33 see rejection of claim 1.

Regarding claim 34, the movement of the movement element comprises a plurality of motions.

International application No.
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Supplemental Box
In case **the space in any of the preceding boxes is not sufficient.**

Regarding claim 43,45 a user's motion is measured and recorded as part of a patient's performance data.
Regarding claim 67,70, brain activity is measured during the repeated movements of the movement element and analyzed by the circuitry.

Claims 4,6,10-16,22,23,25,27,31,32,35-42,44,46-81 meet the criteria set out in PCT Article 33(2)-(3), because the prior art does not teach or fairly suggest the control of the direction and location of movement or a reach point by circuitry, the measurement of a parameter of motion of said movement element, a template of expected brain-motion relationship, the generation of expected motion based on the measurement of brain waves, the generation of expected brain activity based on movement, the comparison of said measurement to rehabilitation information as well as its trends, the change of a motion parameter responsive to said measurement within a time from of said movement, a fMRI brain wave monitor, a robotic manipulator, unrestricted movement in 3D space over 30cm volume, cognitive rehabilitation, brain rehabilitation, cortical reorganization, indications of brain plasticity, measuring and controlling said motion at least 10 times, repeating and controlling 20 different motions, comparing motions and measurements for a healthy side and a paretic side, measuring the quality of said motion, training the control of cortical activity, locally activating a brain region while applying treatment and delivering a drug, using external stimulation, detecting intent to carry out physical activity, a spatial manipulator, and measuring movement of a patient in response to imagery

Claims 1-81 meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.